

Effect of Digital Infrastructure on International Business Connectedness of Coca Cola Plc. Owerri, South-East, Nigeria

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Abstract

Digitalization is increasingly playing an important role in the growth of businesses and is leading to strategic, cultural and structural transformations. This study was conducted to examine the effects of digital infrastructure on international business connectedness in South-East Nigeria. The study adopted a survey research design in a population of 552 employees of Coca Cola Plc Owerri main depot and used the Taro Yamane formula to determine a sample size of 232 employees of Coca Cola Plc Owerri South-South, Nigeria. Simple regression analysis was used for data analyses and test of hypotheses. The result shows that digital infrastructure have significant positive effect on international business connectedness of Coca Cola Plc Owerri South-South, Nigeria. Based on the findings, it was concluded that digital infrastructure have significant positive effect on international business connectedness of Coca Cola Plc Owerri South-East, Nigeria. It was recommended among others that corporations and their suppliers should use digital tools such as IT infrastructure, cloud computing and data security not only to detect and resolve problems that may affect business interconnectedness but also to improve communication, collaboration and innovations.

Keywords: *Digitalization, Infrastructure, Business, Internet, Broadband, Connectedness.*

1. Introduction

Digitalization is increasingly playing an important role in the growth of businesses and leads to strategic, cultural and structural transformations. For businesses which decide to engage internationally, the use of digital innovations presents new opportunities to succeed in foreign markets, based on unique value proposition (Schmitt and Baldegger, 2020). With the advent of modern digital economy, the locus of innovation is shifting from firms to demand-side networks, particularly the end users that increasingly draw attention to digital businesses that develop digital

innovations without knowing the whole design and extensively rely on their demand-side networks for interactively evolving digital innovations to satisfy current users and also expand to new global business environments (Shaheer and Li, 2019).

Digital infrastructure refers to the digital technologies that provide the foundation for an organization's information technology and operations. Examples of digital infrastructure include components such as IT virtualization, cloud computing and data security, internet backbone and broadband of business connectivity, mobile telecom and digital communication suites, data centers and networks, enterprise portals, platforms, operating systems, fibre infrastructure, server hardware, APIs, fibre infrastructure, infrastructure software among others. These digital infrastructure components are necessary in delivering digital goods, products and services. Success of digital infrastructure in facilitating connectedness depends largely on cyber security that can prevent hacking, copyright violations and other cyber-crimes (Shareer, 2019). Businesses rely on digital infrastructure to work efficiently and compete in increasingly connected global markets. In addition, emerging technologies like artificial intelligence (AI), 5G and IoT, are driving consumer demand and transforming how businesses are run. Yet digital transformation can't happen without the right digital infrastructure (Obialor and Effiom, 2023).

IT virtualization is the innovative process that allows businesses to create multiple simulated environments from a single, physical hardware system, maximizing resource utilization and operational flexibility. Virtualization involves creating digital versions of physical assets such as servers, storage devices, and technology that enables companies to run multiple virtual systems with different operating systems on just one piece of hardware. IT virtualization has emerged as a valuable tool for enhancing business agility by allowing firms to respond quickly, efficiently and cost-effectively to market changes. By enabling rapid installation and migration of applications and services across systems, the migration to the virtualized systems has allowed companies to achieve significant operational flexibility, responsiveness, and scalability gains (Chow, 2021).

With stronger digital networks, businesses of all sizes can more easily use technologies such as cloud computing and data security to enhance their operation and drive innovation. Cloud computing is an integral part of modern businesses that allows for secure storage, easy access to data and collaboration across multiple locations. Adopting cloud computing eliminate the need for on-premises hardware, and take advantage of advanced services provided by cloud providers (Obialor and Effiom, 2023).

In the digital age, seamless and uninterrupted connectivity has become the backbone of successful businesses and organizations across industries. Internet or business broadband is a high-speed internet connection for use in offices and other workplaces. As businesses grow, their internet requirements expand as well. Fibre offers significantly higher bandwidth capacity compared to other connections, providing ample room for businesses to scale their operations without compromising speed and performance. This increased capacity allows for seamless multitasking, supporting multiple users, devices and applications simultaneously (Kim and Jensen, 2014). Mobile telecom network is a telecommunications network where the link to and from end nodes is wireless and the network is distributed over land areas called cells, each served by at least one fixed-location transceiver (typically three cell sites or base transceiver stations). Examples include text messaging,

email and basic access to the Internet. Third generation (3G) phones still use digital communications, but they send and receive their signals in a very different way from their predecessors (Wrike, 2023).

Eden (2016) maintain that the rise of digital economy is regarded as one of the most important winds of change that is driving substantial extensions in current strategy and International Business (IB) frameworks. An important transition in digital era is global proliferation of digital innovations, which can be defined as reprogrammable software developed through recombination of digital components in layered, modular architectures to create new value for users. Some distinctive characteristics of digital innovations include generativity and reprogrammability, which afford digital businesses the flexibility to continuously evolve their innovations based on the interaction of digital innovations with demand-side networks (Autio et al, 2018).

Autio (2017) posits that each digital innovation can be characterized as a new-to-the-world technology whose developers (ie, digital businesses) rarely possess sufficient ex-ante knowledge as to what characteristics will increase the chances of its adoption. Digitalization in business is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities. Digitalization of business helps to improve the efficiency of its process, consistency and quality. Digitalization can integrate conventional records or files into a digitalized form, eliminating redundancies and shortening of communications chain, improve and facilitate a better information exchange.

Despite successfully evolving digital innovations into potential global hits, digital business may still need to deploy their marketing capabilities to spread the improved innovation in their countries. Heterogeneous countries also may not necessarily have the most extensive communication network with other countries to initiate an apprentice process of global diffusion through positive word-of-mouth, which could substitute for marketing capabilities in some conditions. Consequently, as the ease of innovation in a digital area is flooding the cyberspace with millions of digital innovations, it is rare that global business users find a particular digital innovation out of an ocean of competitors (Eckhardt, 2016). Thus, there is usually a strong distinction between innovations that may be potentially attractive to global businesses and users, and innovations that these global users know and seek.

Thus, given that global business users rarely discover and adopt high quality innovations on their own, marketing investments become essential to exploit the potential of an improved innovation. Previous studies accessed were researches carried out abroad that studied mostly single variables in some developed business environments. Thus, the challenge before this study is to examine the effects of digital infrastructure on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria with specific attention to IT virtualization, cloud computing and data security, Internet backbone and broadband, and mobile telecommunication variables.

The main objective of the study is to examine the effects of digital infrastructure on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria. The specific objectives are to:

1. ascertain the influence of IT virtualization on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria.

2. assess the effect of cloud computing and data security on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria.
3. determine the effect of Internet backbone and broadband on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria.
4. examine the influence of mobile telecom on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria.

Hypotheses

In line with the objectives of the study, the following hypotheses were formulated to guide the study.

1. H₀₁: IT virtualization has no significant influence on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria.
2. H₀₂: Cloud computing and data security have no significant effect on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria.
3. H₀₃: Internet backbone and broadband have no significant effect on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria.
4. H₀₄: Mobile telecom has no significant influence on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria.

The study is organized in five different but interrelated sections which include the introduction, literature review, data and methodology, results and discussions, and conclusion and policy recommendations.

2. REVIEW OF RELATED LITERATURE

International Businesses and Digital Infrastructure

Businesses have been using digital technologies for variety of purposes. The diverse modes for engaging with digital technologies have created a wide spectrum of organizations and business models, by making it difficult to reach a unified definition of digital businesses (Mckinsey and Company 2016). On most fundamental level, many firms incorporate digital technologies in traditional businesses in order to improve operational efficiency, obtain finances through methods like crowdfunding, or increase sales of existing products through websites or E-mail marketing. Research in International Business (IB), strategy, and entrepreneurship according to Singh and Kundu (2002) cited in Obialor and Effiom (2023) has largely focused on organizations who employ digital technologies for increasing their sales or reaching geographically distance customer segments.

Similarly, research on global firm highlights the role of technology in connecting businesses with overseas users. Bell and Loane (2010) opine that a more relevant context for an enquiry into digital economy can be the firms whose core business is based on digital technologies. The products and value chains of these businesses rely on digital infrastructures to an extent that the very existence of these businesses would not be possible without modern digital infrastructures. These businesses may include well-based businesses, digital information goods, or digital innovations like mobile apps

(Boudreau, 2012). As these businesses according to Shaheer and Li, (2019) are digitally enabled, they are more likely to experience the opportunities and challenges of digital world.

However, Global digital business is about a firm whose core value proposition is enabled by digital infrastructure. Most global businesses according to Autio (2017) are largely scale free as expanding to new countries may neither require additional investments nor affect the value of their innovations. Consequently, fully digital businesses with free digital innovations may provide the most conservative tests for existing strategy, International Business, and entrepreneurship theories that are largely developed in the context of firms with non-scale free products and services. Autio (2017) is of the opinion that digital businesses developed digital innovation without fully knowing the whole design, rather rely on knowledge and innovative ideas extracted from digital networks to continuously reiterate their innovations to better address market needs. Hence, digital networks play a pivotal role in shaping the attributes of digital innovations to satisfy the requirements of current and new markets (Amit and Han, 2017).

Digital Infrastructure Components and Business Connectedness

Digital infrastructure is the total physical and software-based infrastructure necessary to deliver digital goods, products and services. Businesses rely on digital infrastructure to work efficiently and compete in increasingly connected global markets. Digital infrastructure enables success, powers transformation and connects people around the world and the potential to revolutionize business operations, allow companies to improve customer service, increase efficiency, reduce costs, and gain a competitive advantage (Wrike, 2023).

IT infrastructure plays a vital role in ensuring the smooth functioning of business operations. It provides the necessary hardware and software resources that enable employees to perform their tasks efficiently. In Coca Cola for instance, a robust IT infrastructure ensures that employees have access to reliable internet connectivity, which is essential for communication, research, and collaboration. It also supports the deployment of business applications and software tools that streamline various processes such as project management, customer relationship management, and financial reporting. In addition, IT infrastructure facilitates secure data storage and backup, ensuring that critical business information is protected from loss or unauthorized access, which allows businesses to maintain continuity and recover quickly in the event of a disaster or system failure (Obialor and Effiom, 2023). Virtualization involves creating digital versions of physical assets such as servers, storage devices, and chnology enables companies to run multiple virtual systems with different operating systems on just one piece of hardware. It's done by adding a layer known as a hypervisor to stimulate the hardware needed for an entire system, out of a pool of shared resources. Virtualization is a good way of gaining good scalability while reducing technology spending. Efficient implementation of IT virtualization results to benefits in form of increase in efficiency and productivity, cost savings, maximizing resource usage, improving resiliency and minimizing downtime, greater flexibility, become more green, and better legacy system handling, scalability and flexibility (Chow, 2021).

Businesses employing cloud-based virtualization must have reliable network monitoring in order to guarantee the best possible performance of their virtual workloads and to promptly detect and resolve problems that may affect the business interconnectedness. Businesses however, can

improve their customer's experience in virtual machines (VMs) by implementing a network monitoring solution that helps them locate slow spots, boost speed, and avoid interruptions. Businesses must prioritize the security of their IT infrastructure to protect sensitive data and prevent cyber-attacks (Obialor and Effiom, 2023). With the increasing prevalence of cyber threats, having robust security measures in place is crucial to safeguarding valuable business operations run smoothly without any interruptions or downtime. Furthermore, reliable and secure IT infrastructure enhances the overall productivity and efficiency of employees. When businesses can rely on a stable and secure IT environment, they can focus on their core responsibilities and deliver better results. Fibre-optic internet provides the necessary speed and reliability to harness the full potential of cloud-based services. With fibre, businesses can be rest assured that their critical data is protected against cyber threats and can be accessed securely from anywhere at anytime (Cox, 2023).

Businesses that depend on cloud-based technology services requires critical internet connection for their day-to-day operations to hit its revenue targets. With stronger digital networks, businesses of all sizes can more easily use technologies such as cloud computing to enhance their operation and drive innovation. Broadband internet service packages tailored exclusively for businesses can provide an added features, increase security and dedicate support businesses need to operate efficiently and reach their goals. Broadband internet most often refers to cable internet plans. Other business-grade broadband connections like fibre, dedicated internet and enterprise-grade 5G fall under the same category (Fairlie, 2023).

A mobile telecommunications network is a group of nodes interconnected by telecommunications links that are used to exchange messages between the nodes. It is also a wireless telecommunications network that provides cell service and related services to mobile phones. In business, having an edge over competitors is the best way to keep businesses relevant. Businesses adopting all these connectivity components would gain a significant competitive advantage in terms of global connectedness (Chow, 2021).

Theoretical Review

Dynamic Capabilities Theory

The dynamic capabilities view of a global firm was postulated by Teece in the early 1990s and in the frame work of Barney (1991) as cited in Barney (2015). The theoretical framework is an advancement of the resource-based view of the firm which views resources as the key to superior organizational performance. However, the resource- based view (RBV) theory failed to recognize the fact that environment in which organizations operate today is not static but very dynamic and often turbulent in nature. The effort to rethink about the applicability of the RBV in a more dynamic environmental context that characterizes today's global businesses is what gave birth to the Dynamic Capabilities theory.

According to Barney and Clark (2007) cited in Barney (2015), Capability is the capacity to utilize resources to perform a task or an activity against opposition or circumstance. While resource based capabilities according to RBV refer to physical, human and organizational assets, dynamic capabilities are learned and stable innovative patterns of behavior through which a firm systematically generates and modifies its way of doing things so that it can become more effective. The dynamic

capabilities theory is based on the concept that organizations will always attempt to innovatively renew their resources in a way that suits the changes taking place in a dynamic business environment. According to the theory, human resource is not a dynamic capability but new capabilities can be created in human resources through training and acquisition of new knowledge and skills in line with environmental changes.

Empirical Review

Kuri (2024) examined the relationship between strong digital infrastructure networks benefits and business revolutions in Japan. The researcher used correlation analysis for data analysis and interpretation. Result shows that digital infrastructure significantly correlates with business revolution. The researcher conclude that digital infrastructure networks benefits significantly correlate with business revolutions in Japan.

Dyer (2024) assessed the effect of leveraging data for effective risk navigation in Brazil. Simple regression analysis was adopted for data analysis in a population of 236 employees of an entrepreneurial firm in Brazil. Findings show that leveraging of data in the entrepreneurial firm have significant effect on risk navigation. It was concluded that leveraging of data have significant effect on effective risk navigation of entrepreneurial firms in Brazil.

Wrike (2023) carried out a research on optimizing IT infrastructure services for business success in USA. The researcher adopted the survey research design in a population made up of 180 IT firms in USA. Multiple regression analysis was used for data analysis. Results show that optimizing IT infrastructure services have significant effect on business success in USA. The researcher conclude that optimizing IT infrastructure services have significant effect on business success in USA.

Chow (2021) studied IT virtualization and its benefits in business in France. Descriptive research was adopted in a population of 860 micro firms in France using the mean and standard deviation. Findings revealed that benefits in business in France is dependent on IT virtualization. The researcher conclude that benefits in business in France is significantly dependent on IT virtualization.

Cox (2023) carried out a study on the introduction of mobile telecommunications in Cambridge University. The researcher adopted a literature review approach in a population of 4,386 students randomly selected using the simple random technique. Results revealed that the introduction of mobile telecommunications in Cambridge University significantly enhanced exchange of messages in the University.

Research Gap

Previous empirical research examined in this study show that in Nigeria no study covering the effects of digital infrastructure on international business connectedness has been carried out. This study fills the knowledge gap by studying the effects of digital infrastructure on international business connectedness Coca Cola Owerri, South-East Nigeria, considering variables such as IT virtualization, cloud computing and data security, Internet backbone and broadband of business connectivity, and mobile telecommunication variables by contributing to an improvement and enhancement of our understanding of these important digital infrastructure variables especially in the Nigeria context.

3. Methodology

The researchers adopts the survey research design. A sample size of 232 employees was determined from a population of 552 using the Taro Yamane formula. The Ordinary Least Square Regression analysis was used to test the effect of digital infrastructure on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria.

The 232 copies of the questionnaires distributed to the respondents was carefully filled and returned in usable form which represents a 100% return rate.

Test of Hypotheses

Hypothesis 1

H₀₁: IT virtualization has no significant influence on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria.

Table.1: Simple Regression result on IT virtualization and International Business Connectedness of Coca Cola Plc.

Variables	R	R-square	Effect size (%)
IT Virtualization	0.921	0.848	84.8
International Business Connectedness			

The result in Table 1 shows a strong positive influence of IT virtualization on international business connectedness at Coca Cola Plc Owerri South-East, Nigeria. This implies that improvement in IT virtualization would lead to increased international business connectedness at Coca Cola Plc. It also revealed that IT virtualization contributed 84.8% to the variance observed in international business connectedness. This indicates that 84.8% of the variance in International business connectedness at Coca Cola Plc can be explained by IT virtualization. The rest 15.2% can be explained by other factors.

Table 2: Significant determinant of IT Virtualization on International Business Connectedness of Coca Cola Plc.

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1502.527	1	375.632	2269.638	.000
Residual	37.404	231	.166		
Total	1539.931	232			

From the regression analysis shown in Table 2, the statement of hypothesis one is rejected;

implying that IT Virtualization significantly influence international business connectedness of Coca Cola Plc Owerri South-East, Nigeria. This is because the p-value (Sig. = 0.000) is less than 0.05 alpha level of significance.

Hypothesis 2

H0₂: Cloud computing and data security have no significant effect on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria.

Table 3: Simple regression result on Cloud Computing and data security and International business connectedness of Coca Cola Plc.

Variables	R	R-square	Effect size (%)
Cloud Computing and Data Security International Business Connectedness	0.126	0.016	1.60

The result in Table 3 shows a strong positive effect of cloud computing and data security on international business connectedness of Coca Cola Plc Owerri South-East, Nigeria. This implies that an improvement in cloud computing and data security application in Coca Cola Plc would lead to increased international business connectedness. It also revealed that cloud computing and data security application contributed 1.6% to the variance observed in international business connectedness at Coca Cola Plc. This indicates that 1.6% of the variation in international business connectedness at Coca Cola Plc can be explained by cloud computing and data security application. The rest (98.4%) can be explained by others factors.

Table 4: Significant determinant of cloud computing and data security and International Business Connectedness of Coca Cola Plc.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1507.706	2	301.541	2105.451	.000
Residual	32.224	230	.143		
Total	1539.931	232			

From the regression analysis shown in Table 4, the statement of hypothesis 2 is rejected; implying that cloud computing and data security significantly determines international business connectedness of Coca Cola Plc Owerri South-East, Nigeria. This is because the p-value (Sig. = .000) is less than 0.05 alpha level of significance.

Hypothesis 3

H0₃: Internet backbone and broadband have no significant effect on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria.

Table 5: Simple regression result on Internet backbone and broadband and international business connectedness in Coca Cola Plc Owerri South-East, Nigeria

Variables	R	R-square	Effect size (%)
Internet backbone and broadband International Business Connectedness	1.20	0.014	0.069

Table.5 presents the effect of Internet backbone and broadband on international business connectedness of Coca Cola Owerri South-East, Nigeria. The result shows a strong positive relationship between Internet backbone and broadband and international business connectedness at Coca Cola Plc Owerri South-East, Nigeria. This implies that an increase in Internet backbone and broadband technology services would lead to increased international business connectedness at Coca Cola Plc Owerri. It also revealed that Internet backbone and broadband technology services contributed 1.4% to the variance observed in international business connectedness at Coca Cola Plc. This indicates that 1.4% of the variation in international business connectedness at Coca Cola Plc in Owerri South-East, Nigeria can be explained by Internet backbone and broadband technology services. The rest (98.6%) can be explained by others factors.

Table. 6 Significant determinant of Internet backbone and broadband on International Business Connectedness of Coca Cola Plc.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1515.519	3	252.587	2317.753	.000
Residual	24.411	229	.109		
Total	1539.931	232			

From the regression analysis shown in Table 6, the statement of hypothesis 3 is rejected implying that Internet backbone and broadband significantly determines international business connectedness of Coca Cola Plc Owerri South-East, Nigeria. This is because the p-value (Sig. = .000) is less than 0.05 alpha level of significance.

Hypothesis 4

H0₄: Mobile telecom has no significant influence on international business connectedness of Coca Cola Plc Owerri, South-East, Nigeria?

Table 7: Simple regression result on Mobile telecom and International Business Connectedness of Coca Cola Plc Owerri South-East, Nigeria?

Variables	R	R-square	Effect size (%)
Mobile telecom	0.796	0.634	63.4
International Business Connectedness			

Table. 7 presents the influence of Mobile telecom on International Business Connectedness of Coca Cola Plc Owerri South-East, Nigeria. The result shows a strong positive influence of mobile telecom on international Business Connectedness in Coca Cola Plc Owerri South-East, Nigeria. This implies that an improvement in mobile telecom network coverage would lead to increased information exchanges at Coca Cola Plc international Connectedness. It also revealed that mobile telecom contributed 63.4% to the variance observed in international Business Connectedness at Coca Cola Plc. This indicates that 63.4% of the variation in international Business Connectedness can be

explained by mobile telecommunication network coverage. The rest (36.6%) can be explained by others factors.

Table.8 : Significant determinant of Mobile Telecom on International Business Connectedness of Coca Cola Plc.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1515.587	4	216.512	1983.314	.000
Residual	24.344	228	.109		
Total	1539.931	232			

From the regression analysis shown in Table. 8, the statement of hypothesis 4 is rejected, implying that mobile telecom significantly influence international business connectedness at Coca Cola Plc Owerri South-East, Nigeria. This is because the p-value (Sig. = .000) is less than 0.05 alpha level of significance.

4. Results and Discussion of Findings

The result in this study shows a strong positive influence of IT virtualization on international business connectedness of Coca Cola Plc Owerri South-East, Nigeria with an adjusted R² result of 0.848 representing 84.8%. From the regression analysis shown in this study, the statement of hypothesis one is rejected; implying that IT virtualization significantly influenced international business connectedness of Coca Cola Plc South-East Nigeria. This is because the p-value (Sig. = 0.000) is less than 0.05 alpha level of significance.

The result of hypothesis two also shows a strong positive effect of cloud computing and data security application on international business connectedness of Coca Cola Plc Owerri South-East, Nigeria . This implies that an improvement in cloud computing and data security application would lead to increased international business connectedness in Coca Cola Plc. It also revealed that cloud computing and data security application contributed 1.6% to the variance observed in international business connectedness of Coca Cola Plc. This indicates that 1.6% of the variation in international business connectedness in Coca Cola Plc can be explained by cloud computing and data security application. The rest 98.4% can be explained by others factors. From the regression analysis shown in this study, the statement of hypothesis two is Rejected because the p-value 0.000 is less than the 0.05 level of significance, implying that cloud computing and data security have significant effect on international business connectedness in Coca Cola Plc Owerri South-East Nigeria.

Result from hypothesis three also shows a strong positive effect of Internet backbone and broadband technology services on international business connectedness of Coca Cola Plc Owerri South-East, Nigeria with an adjusted R² result of 0.014 representing 1.4%. From the regression analysis shown in this study, the statement of hypothesis three that recorded an F-statistics result of 2317.753 and a p-value (Sig. = 0.000) less than 0.05 alpha level of significance is rejected. Implying that Internet backbone and broadband significantly affect international business connectedness of Coca Cola Plc Owerri in South-East Nigeria due to stronger digital networks that provides businesses with added features.

Hypothesis four result also indicated a strong positive influence of mobile telecommunication on international business connectedness of Coca Cola Plc Owerri South-East, Nigeria with an adjusted R^2 result of 0.634 representing 63.4%. From the regression analysis shown in this study, the statement of hypothesis four that recorded an F-statistics result of 1983.314 and a p-value (Sig. = 0.000) less than 0.05 alpha level of significance is rejected. Implying that mobile telecommunication significantly influenced international business connectedness Coca Cola Plc Owerri South-East Nigeria.

5. Conclusion and Policy Recommendations

The study was conducted to examine the effects of digital infrastructure on international business connectedness of Coca Cola Plc Owerri South-East Nigeria. Findings show that IT virtualization significantly influenced international business connectedness of Coca Cola Plc Owerri South-East Nigeria with a p-value result (Sig. = 0.000) less than 0.05 alpha level of significance accompanied by F-statistics value of 2269.683 and an adjusted R^2 result of 0.848 representing 84.8%. It was concluded that IT virtualization have positive significant influence on international business connectedness of Coca Cola Plc Owerri South-East, Nigeria.

Hypothesis two result also shows a strong positive effect of cloud computing and data security on international business connectedness of Coca Cola Plc Owerri South-East, Nigeria. Findings revealed that cloud computing and data security contributed 1.6% to the variance observed in international business connectedness of Coca Cola Plc Owerri which indicates

that 1.6% of the variation in international business connectedness of Coca Cola Plc can be explained by cloud computing and data security applications. Regression analysis result showing a p-value of 0.000 less than the 0.05 level of significance led to the rejection of the null hypothesis and acceptance of the alternative hypothesis which states that cloud computing and data security significantly affects international business connectedness of Coca Cola Plc Owerri South-East Nigeria.

Hypothesis three result also shows a strong positive effect of Internet backbone and broadband on international business connectedness of Coca Cola Plc Owerri South-East, Nigeria with an adjusted R^2 result of 0.014 representing 1.4%. Regression analysis result recorded an F-statistics result of 2317.753 and a p-value (Sig. = 0.000) less than 0.05 alpha level of significance. Implying that Internet backbone and broadband significantly affects international business connectedness of Coca Cola Plc Owerri South-East Nigeria.

Hypothesis four result also indicated a strong positive influence of mobile telecommunication on international business connectedness of Coca Cola Plc Owerri South-East, Nigeria with an adjusted R^2 result of 0.634 representing 63.4%. From the regression analysis, the statement of hypothesis four that recorded an F-statistics result of 1983.314 and a p-value (Sig. = 0.000) less than 0.05 alpha level of significance is rejected, and conclude that mobile telecommunication significantly influence international business connectedness of Coca Cola Plc Owerri South-East Nigeria.

Based on the findings of this research, the following policy recommendations were made:

1. Owners and managers of international businesses in the South-East should be more technologically driven by investing more in digital infrastructures such as IT infrastructure for a more reliable internet connectivity to enhance business digital connectedness.
2. Corporations and their suppliers should use digital tools such as cloud computing and data security not only to detect and resolve problems that may affect the business interconnectedness but also to improve communication and collaboration.
3. International businesses should adopt stronger digital networks of all sizes for easy use of technologies such as Internet backbone and broadband to enhance their operations and drive innovation.
4. Businesses should adopt mobile telecommunication networks to exchange messages between the nodes and provide cell service and related services to mobile phones users.

Limitations and Suggestions for Further Studies

The study was limited to digital infrastructure on international business connectedness of Coca Cola Plc Owerri South-East, Nigeria and covered variables such as IT virtualization, cloud computing and data security, Internet backbone and broadband, and mobile telecommunications. The study having studied digital infrastructure on international business connectedness in South-East, further research should be carried out in other zones of the country by examining other digital infrastructure variables other than the ones' being studied.

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